

Work Order ID 137484

137484

Page 1

October 02, 2015 2:23:57 PM

Item ID: D350-636-015

Accept

N900040100

Setup Start ***NS1***

Revision ID:

Stop ***NS2***

Item Name: Skidtube LH, Run-on Landing Wearplates, DART(Apical) Cylind./Aerazur Float Comp.

Start Date: 10/2/2015 Start Qty: 1.00 ***1***

Cust Item ID:

Required Date: 10/30/2015 Req'd Qty: 1.00 ***1***

Customer:

Reference:

Approvals: Process Plan: SA Date: 10/15/10/02 Tooling: _____ Date: _____
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Run Start ***NR1***
Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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Draw Nbr	Revision Nbr
D4168-041	B

.100	Document Control	0.00	085						
100	DOCUMENT CONTROL		9						

DC Memo record fwd angle: 89.7° 0.00

Doc.Control -USB or Paperwork

MLJ 16-01-27

DAS
28
9-89

JAN 28 2016

Photocopy blue file and type labels per PPP D350-636-015 CHG 005

B137484 LH

DQA: _____ Date: _____

**WORK ORDER NON-CONFORMANCE / UPDATE**

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval		
Description Work Order Deviation				Disposition					
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐		Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐					
		OTHER : ☐							

Work Order ID 137484

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Item ID: D350-636-015

Accept

N900040100Setup Start ***NS1***

Revision ID:

Stop ***NS2***

Item Name: Skidtube LH, Run-on Landing Wearplates, DART(Apical) Cylind./Aerazur Float Comp.

Start Date: 10/2/2015 Start Qty: 1.00 ***1***

Cust Item ID:

Required Date: 10/30/2015 Req'd Qty: 1.00 ***1***

Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start ***NR1***

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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110

0.00

110

Skidtubes

Skidtubes

Memo

0.02

1- Pick D2600-3 Bent

2- Deburr FWD and AFT ends, remove bending marks. Scribe batch# inside AFT end per dwg D4168

3- Drill pilot holes for blade fitting bolt holes using DT8983. Start with 3/16", then open to 0.500" using center drill then ream holes using 0.500" reamer. PIN first side. Repeat process on second side.

*****ENSURE PROPER POSITIONING FWD BEND MUST BE FACING UP WHEN DRILLING FIRST SIDE*****

Drill pilot holes as per Dwg D4168 sheet 4 (D4168-1 details). Drill using drill Jig DT8150 & DT8863A for first side only DT8863B for second side (detail B)

4- Locate DT8330 off of blade fitting bolt holes and drill pilot holes for blade fitting, section H-H. Open to 0.500" using hole saw. VERIFY AND RECORD FWD BEND ANGLE.

5- Drill tow ring hole using DT9616 detail "A"

6- Drill most FWD wearplate hole using DT9678 locating off of 66.54" hole.

7- Open up holes of Detail A to 0.297" (total of 2 holes per side) and .201" (total of 1 hole per side)

8- Weld D2744 Cap as per Dwg D4168 and QSI 004. Fill grooves in bend left from bending as per QSI 004

BE15-10-13**DD 15-10-6**
PTC

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval		
Description Work Order Deviation				Disposition					

Root Cause				FAULT CATEGORY							
Environment	☐	No Re-verification	☐	Pressure/Forced	☐	Temperature/Cure	☐	Power Loss/Surge	☐	Positioned Wrong	☐
Design	☐	Operator	☐	Bending	☐	Set-up	☐	Folio/Program	☐	Outside Dimensions	☐
Doc/Data	☐	Offset/Setup	☐	Centre Not Concentric	☐	BOM/Route	☐	Grain	☐	Over/Under tolerance	☐
Equip/Tooling	☐	Supplier	☐	Cracks	☐	Broken/Damage/Defect	☐	Weld	☐	Part Incorrect	☐
Handling/Pre	☐	Training	☐	Crimp/Kink/Ripple/Wave	☐	Inspection Incomplete/Unqualified	☐	Wrong Stock Pulled	☐	Part Lost/Missing	☐
Material	☐	Use for Testing	☐	Cuffs	☐	Contamination	☐	Out of Sequence	☐	Part Moved	☐
Internal Transport	☐	Poor Information	☐	Crushing	☐	Countersink	☐	Off-set	☐	Drawing	☐
Tribal Knowledge	☐	Rushing	☐	Heat Treat	☐	Cut Too Short	☐	Mislabeled	☐	Finish	☐
LOA	☐	Product Improvement	☐	Wave/Twist in Tube	☐	Instructions Incomplete/Unclear	☐	Fit/Function	☐	Misread	☐
Substation	☐	Process Improvement	☐	Marks/Chatter	☐	Drill Holes	☐	Misaligned/off center	☐	Turning Sequence	☐
Past Expiry Date	☐	Manufacturing Process	☐	OTHER : _____							
Misidentified	☐	Past Due	☐								

DQA:

Date: 16/02/02



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed:

Date: 16/02/01

Work Order update only ☐

Work Order: <u>137484</u>	DISPOSITION Rework ☒ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS			
Part No. <u>D350-636-015</u>		Skid-tube ☒	Crosstube ☐	Water Jet ☐	Engineering ☐
NCR No. <u>165548</u>		Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐
		Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐
		Large Fab ☐	Composite ☐	Supplier ☐	

Root Cause	Date	Step	Qty	Description of work order update or non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Design									
Doc/Data									
Equip/Tooling ☒	15-10-13	110	1	Door Blade fitting Bolt to Tight	A.P. 15.10.13	Open Rear Blade Fitting Bolt to $\phi 0.527$ "	A.P. 15.10.13		DAS 9 9-89
Handling/Pre									
Material									
Operator									
Offset/Setup									
Process									
Supplier									
Training									
Transport									
Unapproved									

FAULT CATEGORY

Landing Gear ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Inspection Strip in Tube ☐ Marks/Chatter ☐ Turning Sequence ☐ Wave/Twist in Tube	General ☐ Bend ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Burrs ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Drawing ☒ Drill Holes ☐ Finish ☐ Fit/Function	☐ Folio/Program ☐ Grain ☐ Hardware ☐ Inspection Incomplete/Unqualified ☐ Instructions Incomplete/Unclear ☐ Misaligned/off center ☐ Mislabeled ☐ Misread ☐ Off-set ☐ Out of Calibration ☐ Out of Sequence	☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Positioned Wrong ☐ Power Loss/Surge	☐ Pressure/Forced ☐ Set-up ☐ Temperature/Cure ☐ Weld ☐ Wrong Stock Pulled ☐ Other
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Work Order ID 137484***137484***

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Item ID: D350-636-015

Accept

N900040100Setup Start ***NS1***

Revision ID:

Stop ***NS2***

Item Name: Skidtube LH, Run-on Landing Wearplates, DART(Apical) Cylind./Aerazur Float Comp.

Start Date: 10/2/2015 Start Qty: 1.00

1

Cust Item ID:

Required Date: 10/30/2015 Req'd Qty: 1.00

1

Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start ***NR1***

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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A/R Aluminum Rod batch: *ML32917*

9- Grind welds flush as per Dwg D4168

70615-10-13

120	QC10- Inspect visual per QSI004- ground welds	0.00							DAS 38 9-89
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120

QC	Memo	0.00							
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Quality Control

OCT 14 2015

130	QC5- Inspect part completeness to step on W/O	0.00							DAS 38 9-89
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130

QC	Memo	0.00							
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Quality Control

OCT 14 2015

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval		
Description Work Order Deviation				Disposition					

Root Cause				FAULT CATEGORY			
Environment	☐	No Re-verification	☐	Pressure/Forced	☐	Temperature/Cure	☐
Design	☐	Operator	☐	Bending	☐	Set-up	☐
Doc/Data	☐	Offset/Setup	☐	Centre Not Concentric	☐	BOM/Route	☐
Equip/Tooling	☐	Supplier	☐	Cracks	☐	Broken/Damage/Defect	☐
Handling/Pre	☐	Training	☐	Crimp/Kink/Ripple/Wave	☐	Inspection Incomplete/Unqualified	☐
Material	☐	Use for Testing	☐	Cuffs	☐	Contamination	☐
Internal Transport	☐	Poor Information	☐	Crushing	☐	Countersink	☐
Tribal Knowledge	☐	Rushing	☐	Heat Treat	☐	Cut Too Short	☐
LOA	☐	Product Improvement	☐	Wave/Twist in Tube	☐	Instructions Incomplete/Unclear	☐
Substation	☐	Process Improvement	☐	Marks/Chatter	☐	Drill Holes	☐
Past Expiry Date	☐	Manufacturing Process	☐	OTHER :			
Misidentified	☐	Past Due	☐				

Work Order ID 137484

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137484

Page 4

Item ID: D350-636-015

Accept

N900040100Setup Start ***NS1***

Revision ID:

Stop ***NS2***

Item Name: Skidtube LH, Run-on Landing Wearplates, DART(Apical) Cylind./Aerazur Float Comp.

Start Date: 10/2/2015 Start Qty: 1.00

1

Cust Item ID:

Required Date: 10/30/2015 Req'd Qty: 1.00

1

Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start ***NR1***

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
140	Chemical Conversion Coat per QSI005 4.1	0.00							
140									
HandFinish	Memo	0.01							
Hand Finishing									
150	QC7-Inspect Chemical Conversion Coat	0.00							
150									
QC	Memo	0.00							
Quality Control									

1 0 15-10-14 DBC

15-10-15

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval		
Description Work Order Deviation				Disposition					

Root Cause				FAULT CATEGORY			
Environment	☐	No Re-verification	☐	Pressure/Forced	☐	Temperature/Cure	☐
Design	☐	Operator	☐	Bending	☐	Set-up	☐
Doc/Data	☐	Offset/Setup	☐	Centre Not Concentric	☐	BOM/Route	☐
Equip/Tooling	☐	Supplier	☐	Cracks	☐	Broken/Damage/Defect	☐
Handling/Pre	☐	Training	☐	Crimp/Kink/Ripple/Wave	☐	Inspection Incomplete/Unqualified	☐
Material	☐	Use for Testing	☐	Cuffs	☐	Contamination	☐
Internal Transport	☐	Poor Information	☐	Crushing	☐	Countersink	☐
Tribal Knowledge	☐	Rushing	☐	Heat Treat	☐	Cut Too Short	☐
LOA	☐	Product Improvement	☐	Wave/Twist in Tube	☐	Instructions Incomplete/Unclear	☐
Substation	☐	Process Improvement	☐	Marks/Chatter	☐	Drill Holes	☐
Past Expiry Date	☐	Manufacturing Process	☐	OTHER :			
Misidentified	☐	Past Due	☐				

Work Order ID 137484

October 02, 2015 2:23:57 PM

137484

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Item ID: D350-636-015

Accept

N900040100Setup Start ***NS1***

Revision ID:

Stop ***NS2***

Item Name: Skidtube LH, Run-on Landing Wearplates, DART(Apical) Cylind./Aerazur Float Comp.

Start Date: 10/2/2015 Start Qty: 1.00

1

Cust Item ID:

Required Date: 10/30/2015 Req'd Qty: 1.00

1

Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start ***NR1***

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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160

0.00

160

Skidtubes

Skidtubes

Memo

0.02

1-Open up holes using hole saw of Detail C and ground handling section AL-AL to 0.625" (total of 8 holes per side)
as per dwg D4168.

2-Open up holes using hole saw of Detail B to 0.750" (total of 4 holes per side)
as per dwg D4168.

3- Open float hole to 0.500" using uni-bit (4 per side) section AJ-AJ

Open wearplate holes to size as per dwg (4 holes per sides) , section CG-CG

4-Chamfer holes of Detail B, C, ground handling section AL-AL and float holes
section AJ-AJ per dwg D4168 (welding instructions on sheet 8)

5-Deburr and blow out all chips from inside of tube

6- Prepare tube for welding, remove alodine as required.

7-Bond web D2739 in place as per QSI 015, let cure for 12hrs.

A/R Sikaflex-291 batch: 133136

exp. date: 16-2-12

ATTN: USE I-BEAM LOCATION AID (BLADE FITTING)

8- Weld spacers D3490-1, D3490-3 and D2743 as per dwg D4168 and D4170-1
& QSI004

(welding instructions on sheet 8)

A/R Aluminum Rod batch: M132917

15-10-15

DGC 15-10-15.

DQA: _____ Date: _____

**WORK ORDER NON-CONFORMANCE / UPDATE**

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date : _____	Step #: _____	QTY Effective : _____		MRB (QSI042) Approval	
Description Work Order Deviation		Disposition		Completed By	
				Lead hand / Supervisor Approval Verification	
				QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY			
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐
Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐
Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐
Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐
Past Expiry Date ☐	Manufacturing Process ☐				
Misidentified ☐	Past Due ☐	OTHER : _____			

Work Order ID 137484

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137484

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Item ID: D350-636-015

Accept

N9000040100

Setup Start ***NS1***

Revision ID:

Stop ***NS2***

Item Name: Skidtube LH, Run-on Landing Wearplates, DART(Apical) Cylind./Aerazur Float Comp.

Start Date: 10/2/2015 Start Qty: 1.00 ***1***

Cust Item ID:

Required Date: 10/30/2015 Req'd Qty: 1.00 ***1***

Customer:

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Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

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Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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9- At section AJ-AJ drill out x-bolt spacer to 0.404"

10-Grind welds flush as per Dwg D4168

11-Spot face ground handling holes section (total of 4 places per side) as per dwg D4168, section AL-AL

12- C'bore section CG-CG ADJUST TOOLING AS REQUIRED.

VERF BY: _____

13- Deburr holes, ensure tube is free of all scratches before sending to paint.

***** FOR DELUXE SKIDTUBE IF APPLICABLE DRILL TOW RING HOLE IN TUBE *****

*****REF TO W/O BATCH: N/A *****

170

QC10- Inspect visual per QSI004- ground welds 0.00

170

QC

Memo 0.00

Quality Control

DAS
38
9-89

OCT 22 2015

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS <table style="width: 100%; border: none;"> <tr> <td style="width: 15%;">Skid-tube ☐</td> <td style="width: 15%;">Cross tube ☐</td> <td style="width: 15%;">Water Jet ☐</td> <td style="width: 15%;">Engineering ☐</td> </tr> <tr> <td>Machining ☐</td> <td>Small Fab ☐</td> <td>Prod. Eng. Coord. ☐</td> <td>Quality ☐</td> </tr> <tr> <td>Thermoforming ☐</td> <td>Finishing ☐</td> <td>Rec/Store/Packaging ☐</td> <td>Other ☐</td> </tr> <tr> <td>Large Fab ☐</td> <td>Composite ☐</td> <td>Supplier ☐</td> <td></td> </tr> </table>						Skid-tube ☐	Cross tube ☐	Water Jet ☐	Engineering ☐	Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐	Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐	Large Fab ☐	Composite ☐	Supplier ☐																																															
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		OTHER :																																																																					

Work Order ID 137484

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137484

Page 7

Item ID: D350-636-015

Accept

N9000040100Setup Start ***NS1***

Revision ID:

Stop ***NS2***

Item Name: Skidtube LH, Run-on Landing Wearplates, DART(Apical) Cylind./Aerazur Float Comp.

Start Date: 10/2/2015 Start Qty: 1.00

1

Cust Item ID:

Required Date: 10/30/2015 Req'd Qty: 1.00

1

Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start ***NR1***

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
180	QC5- Inspect part completeness to step on W/O	0.00							DAS 38 9-89
180						1			OCT 22 2015
QC	Memo	0.00							
Quality Control	***VERIFY C'BOARD IS GOOD***								
190	Pressure Wash per QSI005 4.3	0.00							
190						1	15-10-22		
HandFinish	Memo	0.01							
Hand Finishing	Re-alodine tube as per QSI 005 section 4.1.2.1 do not acid etch.								
200		0.00							DAS 41 9-89
200						1			15-11-9
SprayPaint	Memo	0.01							
Spray Painting	1- PRIME AS PER DWG AND QSI 005 4.2 PRIMER PRC DESOTO 515X349 BATCH: <u>130992</u>								
	2- PAINT WHITE AS PER DWG AND QSI 005 4.2 PAINT BATCH: <u>133325</u>								

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date :	Step #:	QTY Effective :		MRB (QSI042) Approval	
Description Work Order Deviation		Disposition		Completed By	
				Lead hand / Supervisor Approval Verification	
				QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY			
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐
Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐
Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐
Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐
Past Expiry Date ☐	Manufacturing Process ☐	OTHER : _____			
Misidentified ☐	Past Due ☐				

Work Order ID 137484

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137484

Page 8

Item ID: D350-636-015

Accept

N900040100

Setup Start ***NS1***

Revision ID:

Item Name: Skidtube LH, Run-on Landing Wearplates, DART(Apical) Cylind./Aerazur Float Comp.

Stop ***NS2***

Start Date: 10/2/2015 Start Qty: 1.00 ***1***

Cust Item ID:

Required Date: 10/30/2015 Req'd Qty: 1.00 ***1***

Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start ***NR1***

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
210	QC14- Inspect Spray Paint	0.00							
210									
QC	Memo	0.00							
Quality Control	Inspect for foreign object per QSI 024								
230	HandFinishing	0.00							
230									
HandFinish	Memo	0.02							
Hand Finishing	1- Install inserts as per Dwg D4168								
	2-Inspect for Foreign Objects								
	3-Install blade fitting D3488-041, wearshoes and ground handling hardware as per dwg D4168								
	SIKA FLEX 241								
	BATCH: <u>M133427</u>								
	EXP DATE: <u>16102</u>								
	4-assemble o'ring to plug as per dwg D3492 and apply o'ring lube								
	A/R 55-o'ring lube batch: <u>M133145</u> <u>1370 598</u> <u>M133436</u> <u>16105</u>								
	5-Coat all exposed fasteners with "LPS Procyon" batch: <u>14122900</u>								

124 d 11 151118 04S 15 888

124 d 11 151120

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval		
Description Work Order Deviation				Disposition					

Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐				FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐							
				OTHER : ☐							

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N900040100

Setup Start *NS1*

Stop *NS2*

Start Date: 10/2/2015 **Start Qty:** 1.00 ***1***

Cust Item ID:

Required Date: 10/30/2015 **Req'd Qty:** 1.00 ***1***

Customer:

Reference:

Approvals: **Process Plan:** _____ **Date:** _____ **Tooling:** _____ **Date:** _____

Run Start *NR1*

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop ***NR2***

Stamp

0.00

240

QC

Memo

0.00

Quality Control

0.00

250

Packaging

Memo

0.00

Packaging

**If making a D350-636-215
pick kit will only requires:**
1 X AN3C37A
1 X AN3C34A
1 X AN3C42A
2 X D3493-1

0.00

260

QC

Memo

0.00

Quality Control

*****ensure antiseize is on AN8C21A bolts*****

Qty	Qty	Number	Stamp
1			DAS 38 9-89
			JAN 28 2016

JAN 27 2016

DAS 6
DCS 9-89

DAS 27
9-89

1
 DAS
 28
 9-89

JAN 28 2018

DQA: _____ Date: _____

**WORK ORDER NON-CONFORMANCE / UPDATE**

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval Completed By _____ Lead hand / Supervisor Approval Verification _____ QC / QA Coordinator Approval _____		
Description Work Order Deviation				Disposition					

Root Cause				FAULT CATEGORY			
Environment ☐	☐	No Re-verification ☐	☐	Pressure/Forced ☐	☐	Temperature/Cure ☐	☐
Design ☐	☐	Operator ☐	☐	Bending ☐	☐	Set-up ☐	☐
Doc/Data ☐	☐	Offset/Setup ☐	☐	Centre Not Concentric ☐	☐	BOM/Route ☐	☐
Equip/Tooling ☐	☐	Supplier ☐	☐	Cracks ☐	☐	Broken/Damage/Defect ☐	☐
Handling/Pre ☐	☐	Training ☐	☐	Crimp/Kink/Ripple/Wave ☐	☐	Inspection Incomplete/Unqualified ☐	☐
Material ☐	☐	Use for Testing ☐	☐	Cuffs ☐	☐	Contamination ☐	☐
Internal Transport ☐	☐	Poor Information ☐	☐	Crushing ☐	☐	Countersink ☐	☐
Tribal Knowledge ☐	☐	Rushing ☐	☐	Heat Treat ☐	☐	Cut Too Short ☐	☐
LOA ☐	☐	Product Improvement ☐	☐	Wave/Twist in Tube ☐	☐	Instructions Incomplete/Unclear ☐	☐
Substation ☐	☐	Process Improvement ☐	☐	Marks/Chatter ☐	☐	Drill Holes ☐	☐
Past Expiry Date ☐	☐	Manufacturing Process ☐	☐	OTHER : _____			
Misidentified ☐	☐	Past Due ☐	☐				

Work Order ID 137484***137484***

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Item ID: D350-636-015

Accept

N900040100Setup Start ***NS1***

Revision ID:

Stop ***NS2***

Item Name: Skidtube LH, Run-on Landing Wearplates, DART(Apical) Cylind./Aerazur Float Comp.

Start Date: 10/2/2015 Start Qty: 1.00 ***1***

Cust Item ID:

Required Date: 10/30/2015 Req'd Qty: 1.00 ***1***

Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start ***NR1***

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
270	Packaging	0.00							
270									
Packaging	Memo	0.00					DAS 28 9-89	DAS 27 9-89	JAN 28 2016
Packaging	Identify and pack for shipping as per PPPD350-636-015 Location :FG071								
280	QC21- Final Inspection - Work Order Release	0.00							
280									
QC	Memo	0.00							
Quality Control									

ML5 JAN 28 2016

ML5 JAN 28 2016

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval		
Description Work Order Deviation				Disposition					

Root Cause				FAULT CATEGORY			
Environment	☐	No Re-verification	☐	Pressure/Forced	☐	Temperature/Cure	☐
Design	☐	Operator	☐	Bending	☐	Set-up	☐
Doc/Data	☐	Offset/Setup	☐	Centre Not Concentric	☐	BOM/Route	☐
Equip/Tooling	☐	Supplier	☐	Cracks	☐	Broken/Damage/Defect	☐
Handling/Pre	☐	Training	☐	Crimp/Kink/Ripple/Wave	☐	Inspection Incomplete/Unqualified	☐
Material	☐	Use for Testing	☐	Cuffs	☐	Contamination	☐
Internal Transport	☐	Poor Information	☐	Crushing	☐	Countersink	☐
Tribal Knowledge	☐	Rushing	☐	Heat Treat	☐	Cut Too Short	☐
LOA	☐	Product Improvement	☐	Wave/Twist in Tube	☐	Instructions Incomplete/Unclear	☐
Substation	☐	Process Improvement	☐	Marks/Chatter	☐	Drill Holes	☐
Past Expiry Date	☐	Manufacturing Process	☐	OTHER :			
Misidentified	☐	Past Due	☐				

Picklist Print

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Page 1

Work Order ID: 137484

137484

Parent Item: D350-636-015

D350-636-015

Parent Item Name: Skidtube LH, Run-on Landing Wearplates, DART(Apical) Cylind./Aerazur Float Comp.

Start Date: 10/2/2015

Required Date: 10/30/2015

Start Qty: 1.00

Required Qty: 1.00

Comments: IPP rev:A 10.09.28 new issue DD verf:EC IPP Rev:B
 11.04.14 ecn11-553 DD verf:EC IPP Rev:C 11.10.18 as per
 NCR 11-906 DD verf:EC IPP Rev:D 112.04.16 AS PER ECN 12-
 542 DD verf:EC IPP REV:E 13.08.28 PER ECN13-594 DD
 VERF:JLM

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
AN3C34A		Purchased	No			230	Each	17.0000	1	1			

AN3C34A

BOLT

Location

Loc Qty

Loc Code

ST348

17

m127044

1

m131618

6

m133077

10

all 10/11/15

Picklist Print

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Page 2

Work Order ID: 137484

137484

Parent Item: D350-636-015

D350-636-015

Parent Item Name: Skidtube LH, Run-on Landing Wearplates, DART(Apical) Cylind./Aerazur Float Comp.

Start Date: 10/2/2015

Required Date: 10/30/2015

AN3C36A

Purchased

No

230

Each

Start Qty: 1.00
334.0000 4 4

Required Qty: 1.00

AN3C36A

Bolt

**

all 10/11/15

Location

Loc Qty

Loc Code

FG

47

101261

4

122204

2

m131367

1

m132169

40

FP001

43

m131856

43

ST338a

240

131651

80

m129907

4

m131856

4

m132381

80

m132522

72

ST347

4

m130874

4

X4

D3492-1

Manufactured

No

230

Each

51.0000 8 8

D3492-1

Plug

**

all 10/11/15

Location

Loc Qty

Loc Code

FP001

51

131952

40

133498

11

B136687

X8

Picklist Print

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Page 3

Work Order ID: 137484

137484

Parent Item: D350-636-015

D350-636-015

Parent Item Name: Skidtube LH, Run-on Landing Wearplates, DART(Apical) Cylind./Aerazur Float Comp.

Start Date: 10/2/2015

Required Date: 10/30/2015

D3492-3

Manufactured No

230

Each

Start Qty: 1.00
8 8

Required Qty: 1.00

D3492-3

Plug

**

ll 137484

Location

Loc Qty

Loc Code

FP001

86

125905

2

B137728

28

131036

1

131899

34

133470

49

D3873-1

Manufactured No

230

Each

41.0000 7 7

D3873-1

Bushing

**

ll 138731

Location

Loc Qty

Loc Code

FP001

19

126709

2

B137632

xc

135402

17

B138215

x6

ST063

22

129742

16

134885

6

D4154-041

Manufactured No

230

Each

0.0000 1 1

D4154-041

Wearplate Assembly

**

B138703 (w/ll 138703)

D4170-1

Manufactured No

230

Each

77.0000 4 4

D4170-1

Bushing

**

B151019

Location

Loc Qty

Loc Code

LG001

77

107896

72

119639

5

4

Picklist Print

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Page 4

Work Order ID: 137484

137484

Parent Item: D350-636-015

D350-636-015

Parent Item Name: Skidtube LH, Run-on Landing Wearplates, DART(Apical) Cylind./Aerazur Float Comp.

Start Date: 10/2/2015

Required Date: 10/30/2015

D4171-1

Manufactured No

230 Each

Start Qty: 1.00
22.0000 1 1

Required Qty: 1.00

D4171-1

Bushing

**

all is ltr

Location

Loc Qty

Loc Code

ST096

22

129060

22

xl

MS21043-3

Purchased No

230 Each

840.0000 5 5

MS21043-3

Nut

**

all is ltr

Location

Loc Qty

Loc Code

FG

80

103691

80

FP001

11

m130673

11

GA

159

m130673

15

m131677

144

ST304

553

m131340

180

m133031

373

xs

ST308

37

m132551

37

Picklist Print

Page 5

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Work Order ID: 137484

137484

Parent Item: D350-636-015

D350-636-015

Parent Item Name: Skidtube LH, Run-on Landing Wearplates, DART(Apical) Cylind./Aerazur Float Comp.

Start Date: 10/2/2015

Required Date: 10/30/2015

NAS1149C0363R

Purchased

No

230

Each

Start Qty: 1.00
1,139.000 9 9

Required Qty: 1.00

NAS1149C0363R

Washer

**

ll 10/11/15

Location

Loc Qty

Loc Code

FP001

60

114742

60

GA

506

m133077

506

ST260a

494

m133077

494

ST271

79

m130673

20

m132763

59

x9

NAS1515H3L

Purchased

No

230

Each

291.0000 4 4

***NAS1515H3L ***

Washer

**

ll 10/11/15

Location

Loc Qty

Loc Code

FG

40

102472

40

FP001

55

m127831

55

ST266

196

m127831

40

m130726

156

x4

NAS1611-010

Purchased

No

230

Each

463.0000 8 8

NAS1611-010

O-RING

**

ll 10/11/15

Location

Loc Qty

Loc Code

FP001

463

m130770

303

m131618

160

x6

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Shop Packet Print

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Work Order ID: 137484

137484

Parent Item: D350-636-015

D350-636-015

Parent Item Name: Skidtube LH, Run-on Landing Wearplates, DART(Apical) Cyliind./Aerazur Float Comp.

Start Date: 10/2/2015

Required Date: 10/30/2015

NAS1611-013

Purchased

No

230

Each

Start Qty: 1.00
254.0000 8 8

Required Qty: 1.00

NAS1611-013

O-Ring

**

Handwritten signature

Location

Loc Qty

Loc Code

FP001

254

m130758

254

0
Y.C.

AN3C37A

Purchased

No

250

Each

477.0000 1 1

AN3C37A

BOLT

**

Location

Loc Qty

Loc Code

ST338a

476

131651

70

M128773

1

M129650

55

M131367

70

M131856

70

M132169

70

M132381

70

M132522

70

ST347

1

129687

1

DAS
28
9-89

JAN 27 2016

DAS
27
9-89
DAS
6
9-89

Picklist Print

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Page 7

Work Order ID: 137484

137484

Parent Item: D350-636-015

D350-636-015

Parent Item Name: Skidtube LH, Run-on Landing Wearplates, DART(Apical) Cylind./Aerazur Float Comp.

Start Date: 10/2/2015

Required Date: 10/30/2015

AN3C42A

Purchased No

250 Each

Start Qty: 1.00
1 1

Required Qty: 1.00

AN3C42A

Bolt

**

m13238/

JAN 27 2016

6

DAS
27
9-89

DAS
28
9-89

Location

Loc Qty

Loc Code

FG	5	
121103	5	
ST338a	52	
m130485	3	
m131856	10	
m132381	9	
m132522	10	
m132674	10	
m133091	10	
ST346	19	
m131854	9	
m131855	10	

NAS1149D0863J

Purchased No

250 Each

604.0000 2 2

NAS1149D0863.J

Washer

**

Location

Loc Qty

Loc Code

FP001	51	
125484	51	
ST260a	415	
125268	315	
125635	100	
ST269	138	
125268	138	

DAS
28
9-89

DAS
6
9-89

JAN 27 2016

DAS
27
9-89

Picklist Print

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Page 8

Work Order ID: 137484

137484

Parent Item: D350-636-015

D350-636-015

Parent Item Name: Skidtube LH, Run-on Landing Wearplates, DART(Apical) Cylind./Aerazur Float Comp.

Start Date: 10/2/2015

Required Date: 10/30/2015

D2744 Manufactured No 110 Each 8.0000 Start Qty: 1.00 1 1

Required Qty: 1.00

D2744

Cap

**

BE 15-10-13

Location Loc Qty Loc Code

LG001 8
128212 8

D2600-3-BENT-LH Manufactured No 110 Each 4.0000 1 1

D2600-3-BENT-LH

Extrusion Bent LH

**

DP 15-10-16

Location Loc Qty Loc Code

LG002 4
135767 4

D2743 Manufactured No 160 Each 74.0000 8 8

D2743

Crossbolt Spacer

**

BE 15-10-19

Location Loc Qty Loc Code

LG001 74
130731 74

D2739 Manufactured No 160 Each 4.0000 1 1

D2739

350 I Beam

**

Location Loc Qty Loc Code

LG002 4
136279 4

D3490-3 Manufactured No 160 Each 27.0000 4 4

D3490-3

Cross Bolt Spacer

**

7GL 15-10-15

BE 15-10-19

Location Loc Qty Loc Code

LG 27
130730 27

October 02, 2015 2:24:02 PM

Shop Packet Print

Page 8

Picklist Print

October 02, 2015 2:24:02 PM

Work Order ID: 137484

137484

Parent Item: D350-636-015

D350-636-015

Parent Item Name: Skidtube LH, Run-on Landing Wearplates, DART(Apical) Cylind./Aerazur Float Comp.

Start Date: 10/2/2015

Required Date: 10/30/2015

D3490-1

Manufactured No

160 Each

Start Qty: 1.00
4 4

Required Qty: 1.00

D3490-1

Cross Bolt Spacer

BE 15-10-19

Location

Loc Qty

Loc Code

LG

23

133205

23

LG001

75

134019

75

ALS4-1032-225

AELS8-1032-225 Purchased

No

230 Each

687.0000 4 4

AI S4-1032-225

Rivnut

all 15/11/18

Location

Loc Qty

Loc Code

FG

120

M127028

120

FP001

136

M131582

136

st549

431

M131582

431

AN8C35A

Purchased

No

230 Each

73.0000 1 1

AN8C35A

Bolt

all 15/11/18

Location

Loc Qty

Loc Code

FG

5

121275

5

FP001

68

m131947

13

m132169

10

m132381

15

m132522

15

m132674

15

Picklist Print

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Page 10

Work Order ID: 137484

137484

Parent Item: D350-636-015

D350-636-015

Parent Item Name: Skidtube LH, Run-on Landing Wearplates, DART(Apical) Cylind./Aerazur Float Comp.

Start Date: 10/2/2015

Required Date: 10/30/2015

D3488-041

Manufactured No

230

Each

7.0000

Start Qty: 1.00

Required Qty: 1.00

D3488-041

Blade Fitting LH

**

13136443(12) 11/16/16/22

Location

Loc Qty

Loc Code

FP001

7

129601

7

AN6C44A

Purchased

No

230

Each

617.0000

4

4

**

11/11/16

AN6C44A

Bolt

Location

Loc Qty

Loc Code

FP001

139

131649

100

m131367

1

m132169

38

ST273A

413

m130863

13

m131151

50

m132381

52

m132522

52

m132556

246

ST332

11

m130863

11

ST333

54

m130863

4

m131946

50

X 4

Picklist Print

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Page 11

Work Order ID: 137484

137484

Parent Item: D350-636-015

D350-636-015

Parent Item Name: Skidtube LH, Run-on Landing Wearplates, DART(Apical) Cylind./Aerazur Float Comp.

Start Date: 10/2/2015

Required Date: 10/30/2015

MS21083C8

Purchased

No

230

Each

49.0000

Start Qty: 1.00

1

1

Required Qty: 1.00

MS21083C8

Nut

**

all 10/16/15

Location

Loc Qty

Loc Code

ST300

49

m132067

2

m133016

27

m133134

20

D3631-1

Manufactured

No

230

Each

206.0000

8

8

D3631-1

Washer

**

all 10/16/15

Location

Loc Qty

Loc Code

FP001

206

128320

6

135951

100

136593

100

NAS1149C0332R

Purchased

No

230

Each

5,961.000

4

4

NAS1149C0332R

WASHER

**

all 10/16/15

Location

Loc Qty

Loc Code

FP001

1019

m131618

15

m132930

1004

FP01

2000

m133284

2000

ST271

2942

m133284

2942

x 4

Picklist Print

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Page 12

Work Order ID: 137484

137484

Parent Item: D350-636-015

D350-636-015

Parent Item Name: Skidtube LH, Run-on Landing Wearplates, DART(Apical) Cylind./Aerazur Float Comp.

Start Date: 10/2/2015

Required Date: 10/30/2015

D2745 Manufactured No 230 Each 53.0000

Start Qty: 1.00
8 8

Required Qty: 1.00

D2745

Bushing

★★

ll 10/2/15

Location

Loc Qty

Loc Code

FP001

53

13132731

20

129584

7

131049

46

NAS1149C0832R

Purchased

No

230

Each

103.0000

1

1

NAS1149C0832R

Washer

★★

ll 10/2/15

Location

Loc Qty

Loc Code

ST271

103

m125807

103

AN3C6A

Purchased

No

230

Each

107.0000

4

4

AN3C6A

Bolt

★★

ll 10/2/15

Location

Loc Qty

Loc Code

CA

39

m128704

39

FG

10

122416

10

ST338a

54

m128769

38

m133077

16

ST349

4

m132767

4

11133363

24

Picklist Print

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Page 13

Work Order ID: 137484

137484

Parent Item: D350-636-015

D350-636-015

Parent Item Name: Skidtube LH, Run-on Landing Wearplates, DART(Apical) Cylind./Aerazur Float Comp.

Start Date: 10/2/2015

Required Date: 10/30/2015

MS21043-6

Purchased

No

230

Each

Start Qty: 1.00
4 4

Required Qty: 1.00

MS21043-6

NUT

**

10/11/20

Location

Loc Qty

Loc Code

FG

20

1133483

vd

103693

20

FP001

17

131618

2

m130325

2

m133077

13

ST304

38

m132164

13

m133234

25

D3493-1

Manufactured

No

250

Each

35.0000

2

2

D3493-1

Washer

**

137727

DAS 6 27 9-89

DAS 28 9-89

Location

Loc Qty

Loc Code

FG

10

97201

10

ST039

25

128755

25

MS21083C8

Purchased

No

250

Each

49.0000

2

2

MS21083C8

Nut

**

133577

DAS 6 27 9-89

DAS 28 9-89

Location

Loc Qty

Loc Code

ST300

49

m132067

2

m133016

27

m133134

20

JAN 27 2016

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Shop Packet Print

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Picklist Print

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Page 14

Work Order ID: 137484

137484

Parent Item: D350-636-015

D350-636-015

Parent Item Name: Skidtube LH, Run-on Landing Wearplates, DART(Apical) Cylind./Aerazur Float Comp.

Start Date: 10/2/2015

Required Date: 10/30/2015

AN8C21A

Purchased

No

250

Each

Start Qty: 1.00
2 2

Required Qty: 1.00

AN8C21A

Bolt

**

M 133332

DAS 27 9-89

DAS 28 9-89

Location

Loc Qty

Loc Code

FG

4

123966

2

m132169

2

ST273A

20

m132381

20

ST312A

41

m132542

11

m132674

30

ST332

7

m131100

1

m132169

2

m132522

4

D2741

Manufactured

No

250

Each

34.0000

1

1

D2741

Replacement Blade

**

D 135909

DAS 27 9-89

DAS 28 9-89

Location

Loc Qty

Loc Code

FG

10

131616

10

FP001

1

132981

1

ST538

23

131616

6

132981

17

JAN 27 2016

QTY -041	QTY -042	QTY -043	QTY -044	PART NUMBER	DESCRIPTION
X				D4168-041	350 SKIDTUBE ASSEMBLY, LH
	X			D4168-042	350 SKIDTUBE ASSEMBLY, RH
		X		D4168-043	350 SKIDTUBE ASSEMBLY, LH
			X	D4168-044	350 SKIDTUBE ASSEMBLY, RH
1	1	1	1	D2739	WEB
8	8	8	8	D2743	SPACER
1	1	1	1	D2744	CAP
8	8	8	8	D2745	BUSHING
1		1		D3488-041	BLADE FITTING, LH
	1		1	D3488-042	BLADE FITTING, RH
4	4	4	4	D3490-1	SPACER
4	4			D3490-3	SPACER
		4	4	D3490-5	SPACER
8	8	8	8	D3492-041	PLUG ASSEMBLY
8	8			D3492-043	PLUG ASSEMBLY
		8	8	D3492-045	PLUG ASSEMBLY
8	8	8	8	D3631-1	WASHER
7	7	7	7	D3873-1	BUSHING
1	1	1	1	D4154-041	WEARPLATE ASSEMBLY
1				D4168-1	SKIDTUBE WELDMENT, LH
	1			D4168-2	SKIDTUBE WELDMENT, RH
		1		D4168-3	SKIDTUBE WELDMENT, LH
			1	D4168-4	SKIDTUBE WELDMENT, RH
4	4	4	4	D4170-1	SPACER
1	1	1	1	D4171-1	BUSHING
4	4	4	4	ALS4-1032-225	INSERT
4	4	4	4	AN3C6A	BOLT
1	1	1	1	AN3C34A	BOLT
4	4	4	4	AN3C36A	BOLT
4	4	4	4	AN6C44A	BOLT
1	1	1	1	AN8C35A	BOLT
9	9	9	9	AN960C10	WASHER (OR NAS1149C0363R)
4	4	4	4	AN960C10L	WASHER (OR NAS1149C0332R)
1	1	1	1	AN960C816L	WASHER (OR NAS1149C0832R)
5	5	5	5	MS21043-3	NUT
4	4	4	4	MS21043-6	NUT
1	1	1	1	MS21083C8	NUT
4	4	4	4	NAS1515H3L	WASHER

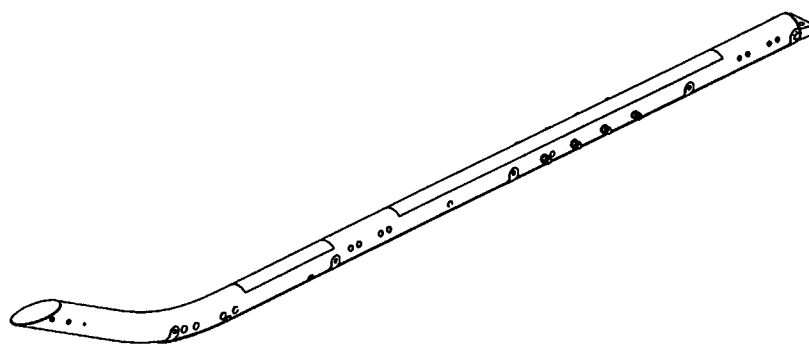
GENERAL NOTES:

- MATERIAL: MAKE D4168-1/-2/-3/-4 FROM D2600-3 EXTRUSION (INITIAL LENGTH = 120.0).
- FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1 PRIOR TO INSTALLING D2739 WEB.
STANDARD: PRIME (REF. 4.2.1.3.3) AND PAINT WHITE PER DART QSI 005 4.2
B. OPTIONAL: POWDER COAT WHITE (REF. 4.3.5.1) PER DART QSI 005 4.3
BLACK ANTI-SKID PAINT AS INDICATED TO 1.0" ABOVE SKIDTUBE CENTER-LINE PER DART 005 4.4 (OPTIONAL).
- TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- UNITS: INCHES UNLESS OTHERWISE NOTED
- BREAK SHARP EDGES: N/A
- IDENTIFICATION: N/A
- WEIGHT: D4168-041/-042/-043/-044 = 32.3 LBS
- WELD PER DART QSI 004
- FINAL CONFIGURATION SHOULD HAVE THE FOLLOWING MINIMUM MECHANICAL PROPERTIES:
MINIMUM YIELD TENSILE STRENGTH = 35 KSI
MINIMUM ULTIMATE TENSILE STRENGTH = 38 KSI
- COAT ALL EXPOSED FASTENERS WITH LPS LABORATORIES "LPS PROCYON" AFTER FINAL ASSEMBLY, CLEAN EXCESS OFF
FINISH WITH MEK DEGREASER.
- SPACER AND PLUG INSTALLED SAME AS SECTION AJ-AJ EXCEPT HORIZONTAL
- SPACER AND PLUG INSTALLED SAME AS SECTION AP-AP EXCEPT HORIZONTAL

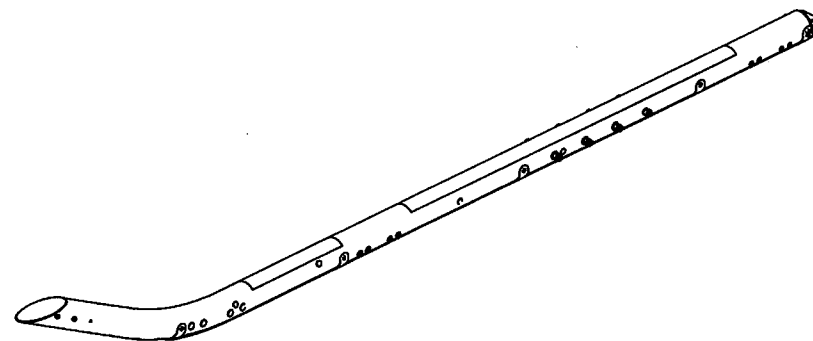
RELEASED
2013-08-13
MD

20151002 SH 137484

B		ADD VIEW TO CONTROL FWD BEND ORIENTATION (ZN D-1-4/-5/-6/-7); UPDATED FINISH OPTIONS. REASON: PAR13-276 AND NCR13-2757		MB	13.07.11
A		NEW ISSUE		SC	10.08.09
REV.	DESCRIPTION			BY	DATE
DESIGN	DART AEROSPACE USA, INC.				
DRAWN	KENT, WA				
CHECKED	DRAWING NO.			REV. B	
MFG. APPR.	D4168			SHEET 1 OF 11	
APPROVED	TITLE			SCALE	
DE APPR.	350 SKIDTUBE ASSEMBLY			NTS	
DATE	13.07.11			COPYRIGHT © 2010 BY DART AEROSPACE USA, INC. THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR REPRODUCED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE USA, INC.	



D4168-041 350 SKIDTUBE ASSEMBLY, LH



D4168-042 350 SKIDTUBE ASSEMBLY, RH

RELEASED
2013-08-13

DESIGN DRAWN CHECKED MFG. APPR. APPROVED DE APPR. DATE	   	DART AEROSPACE USA, INC. KENT, WA DRAWING NO. D4168 TITLE 350 SKIDTUBE ASSEMBLY COPYRIGHT © 2010 BY DART AEROSPACE USA, INC. THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE USA, INC.	REV. B SHEET 2 OF 11 SCALE NTS
--	--	---	---

13.07.11

8 7 6 5 4 3 2 1

D

D

C

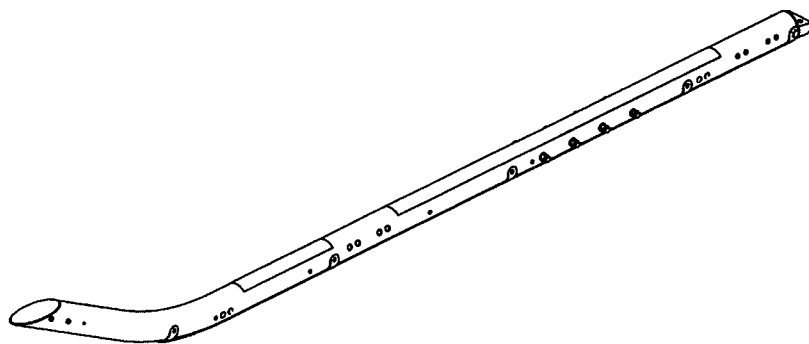
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B

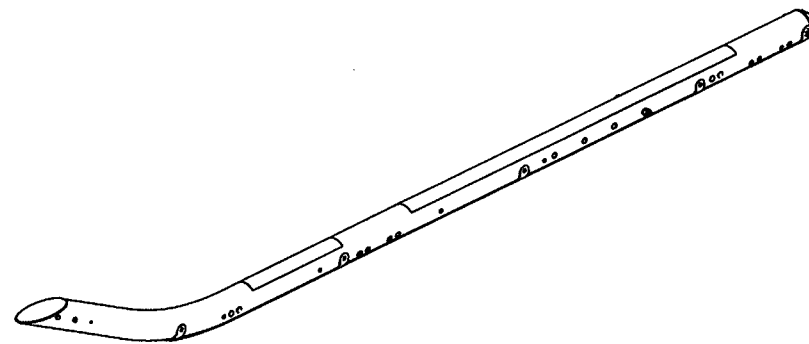
B

A

A



D4168-043 350 SKIDTUBE ASSEMBLY, LH



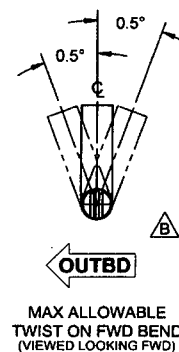
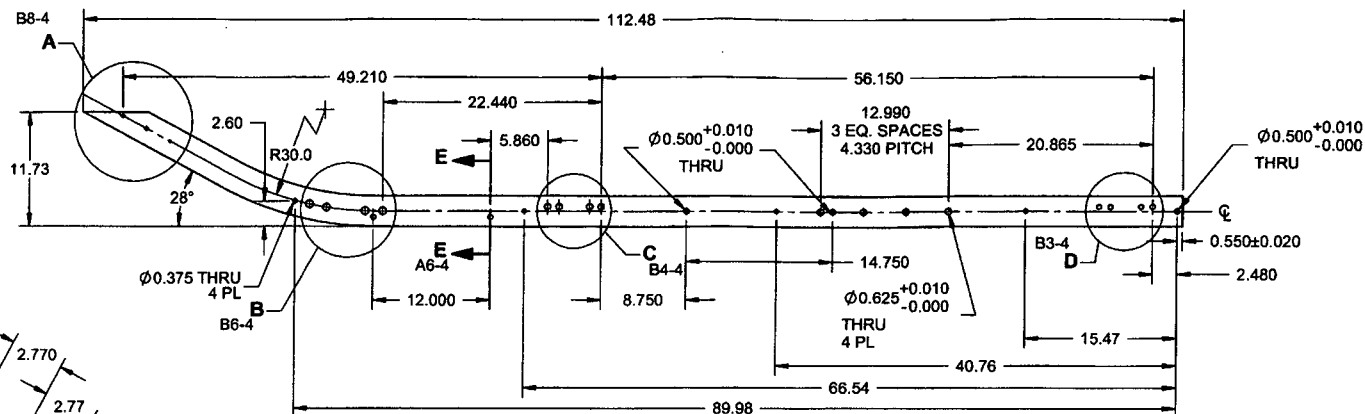
D4168-044 350 SKIDTUBE ASSEMBLY, RH

RELEASED
2013-08-13
AMD

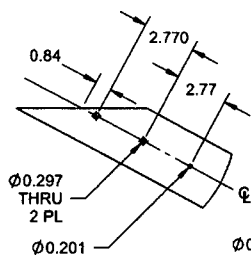
DESIGN	SC	DART AEROSPACE USA, INC.	
DRAWN	JB	KENT, WA	
CHECKED	JP	DRAWING NO.	REV. B
MFG. APPR.	JP	D4168	SHEET 3 OF 11
APPROVED	JP	TITLE	SCALE
DE APPR.	JP	350 SKIDTUBE ASSEMBLY	NTS
DATE	13.07.11	COPYRIGHT © 2010 BY DART AEROSPACE USA, INC. THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL. AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE USA, INC.	

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8 7 6 5 4 3 2 1

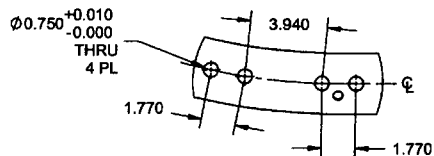


D4168-1 LH SKIDTUBE



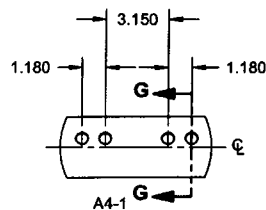
DETAIL A
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D7-4



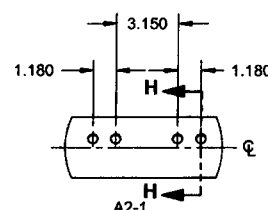
DETAIL B
SCALE 2X

D7-4



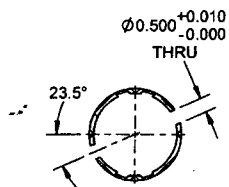
DETAIL C
SCALE 2X

D5-4



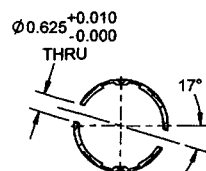
DETAIL D
SCALE 2X

D3-4



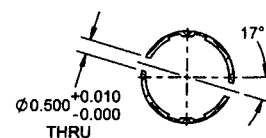
SECTION E-E
SCALE 3X, 2 PL

D6-4



SECTION G-G
SCALE 3X, 4 PL

B4-4



SECTION H-H
SCALE 3X, 4 PL

B2-4

DESIGN
DRAWN
CHECKED
MFG. APPR.
APPROVED
DE APPR.
DATE 13.07.11

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KENT, WA

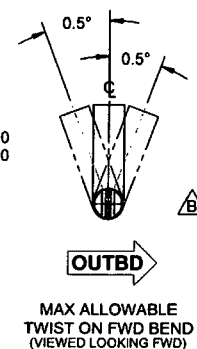
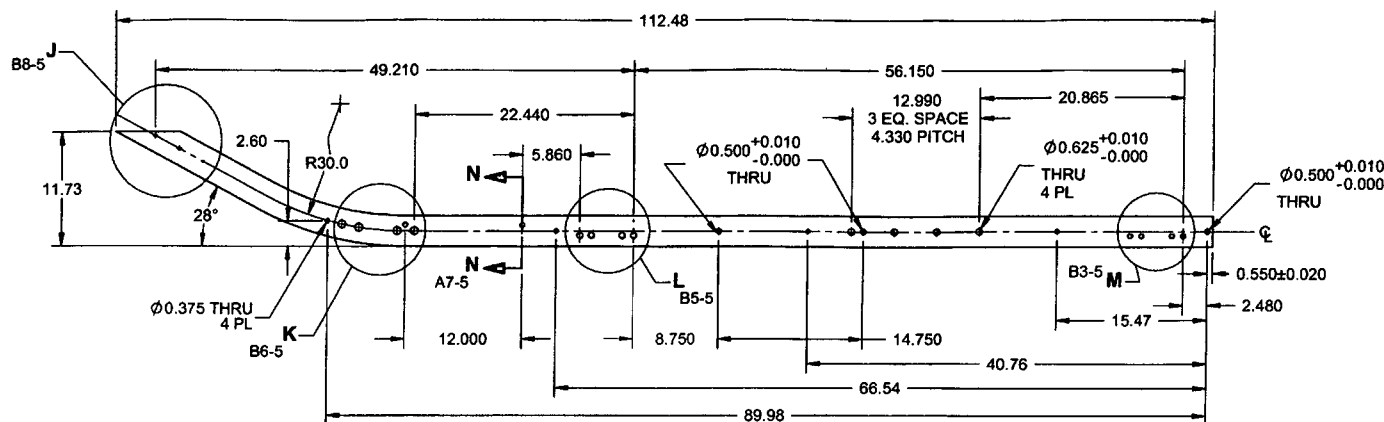
DRAWING NO. **D4168**
TITLE **350 SKIDTUBE ASSEMBLY**
SCALE NTS

REV. A
SHEET 4 OF 11
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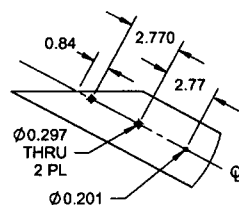
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2013-08-13

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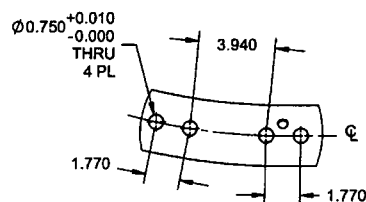
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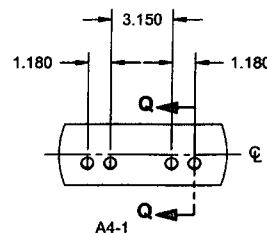
D4168-2 RH SKIDTUBE



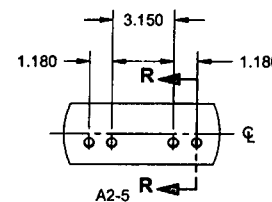
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SCALE 2X



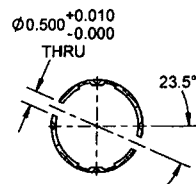
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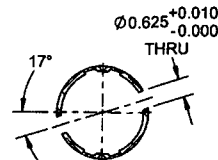
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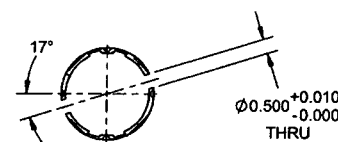
DETAIL M
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SECTION N-N
SCALE 3X, 2 PL



SECTION Q-Q
SCALE 3X, 4 PL



SECTION R-R
SCALE 3X, 4 PL

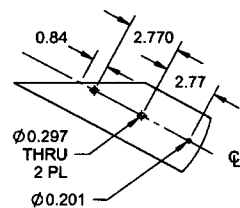
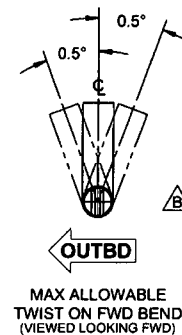
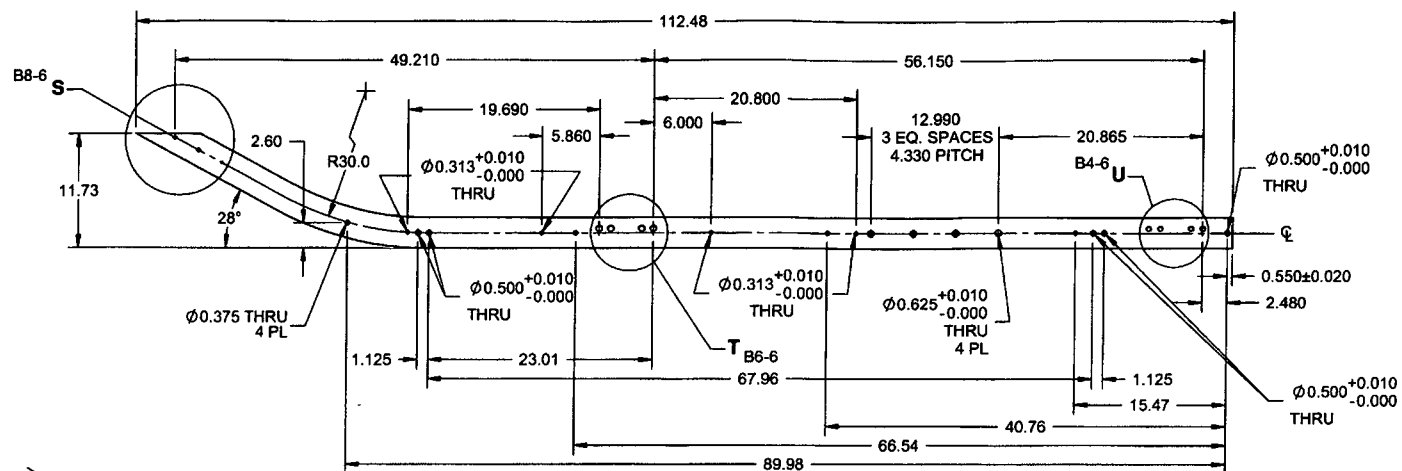
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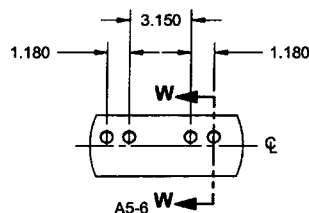
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350 SKIDTUBE ASSEMBLY
REV. B
SHEET 5 OF 11
SCALE
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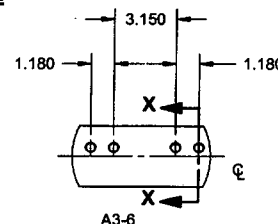
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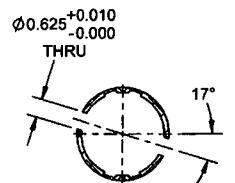
DETAIL S
D8-6
SCALE 2X



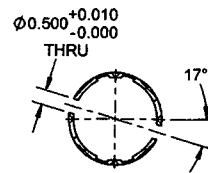
DETAIL T
C5-6
SCALE 2X



DETAIL U
D3-6
SCALE 2X



SECTION W-W
B6-6
SCALE 3X, 4 PL



SECTION X-X
B4-6
SCALE 3X, 4 PL

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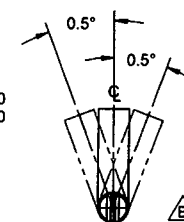
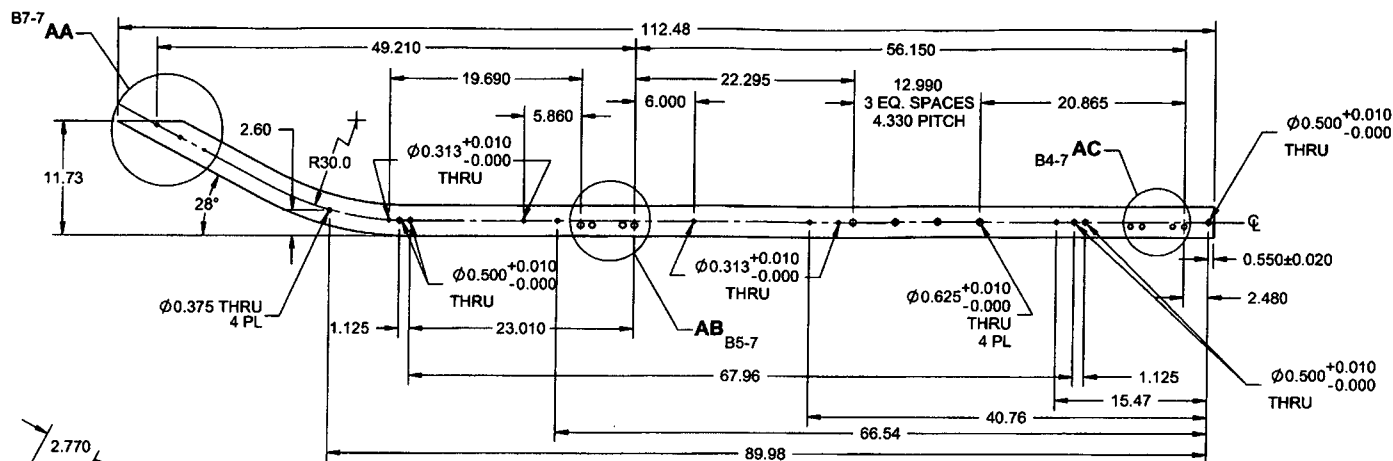
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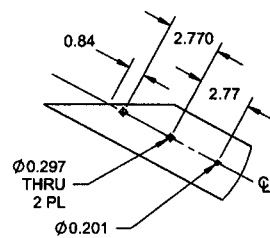
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350 SKIDTUBE ASSEMBLY
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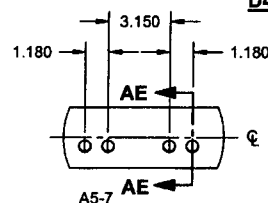
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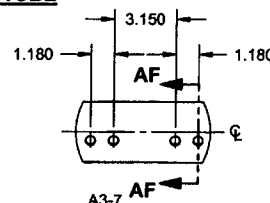
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TWIST ON FWD BEND
(VIEWED LOOKING FWD)



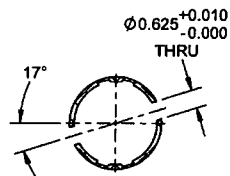
DETAIL AA
SCALE 2X



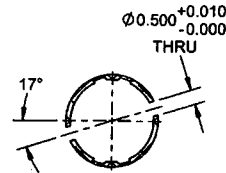
DETAIL AB
SCALE 2X



DETAIL AC
SCALE 2X



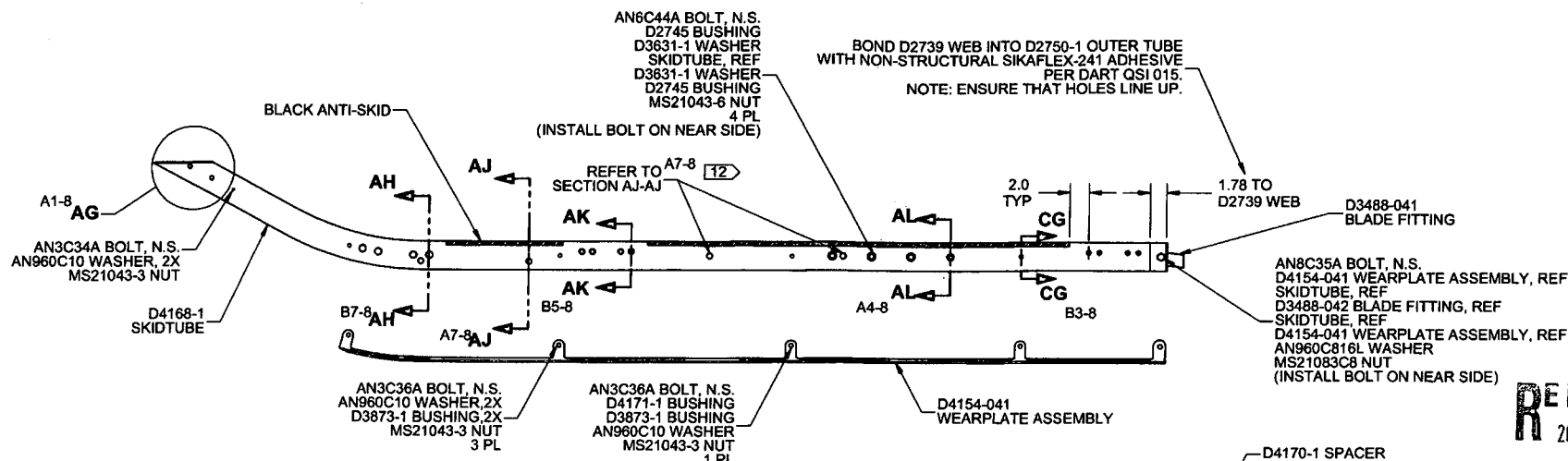
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SCALE 3X, 4 PL



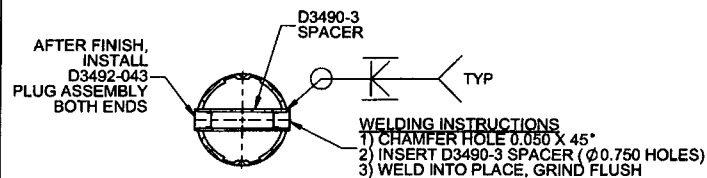
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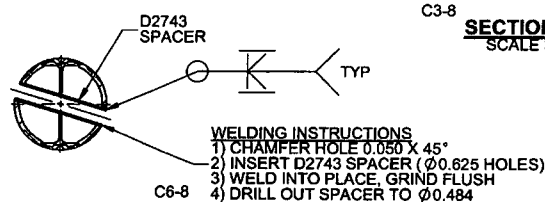
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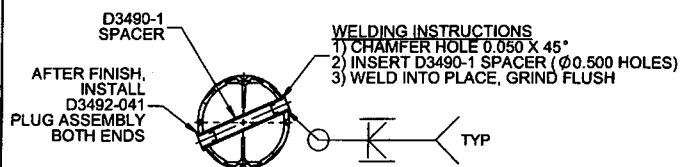
D4168-041 350 SKIDTUBE ASSEMBLY, LH



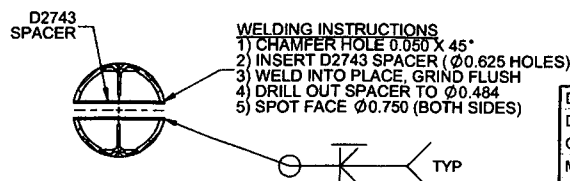
SECTION AH-AH
SCALE 3X, 4 PL



SECTION AK-AK
SCALE 3X, 4 PL



SECTION AJ-AJ
SCALE 3X, 4 PL



SECTION AL-AL
SCALE 3X, 4 PL
(HARDWARE REMOVED FOR CLARITY)

SECTION CG-CG
SCALE 3X, 4 PL

DETAIL AG
SCALE 2X

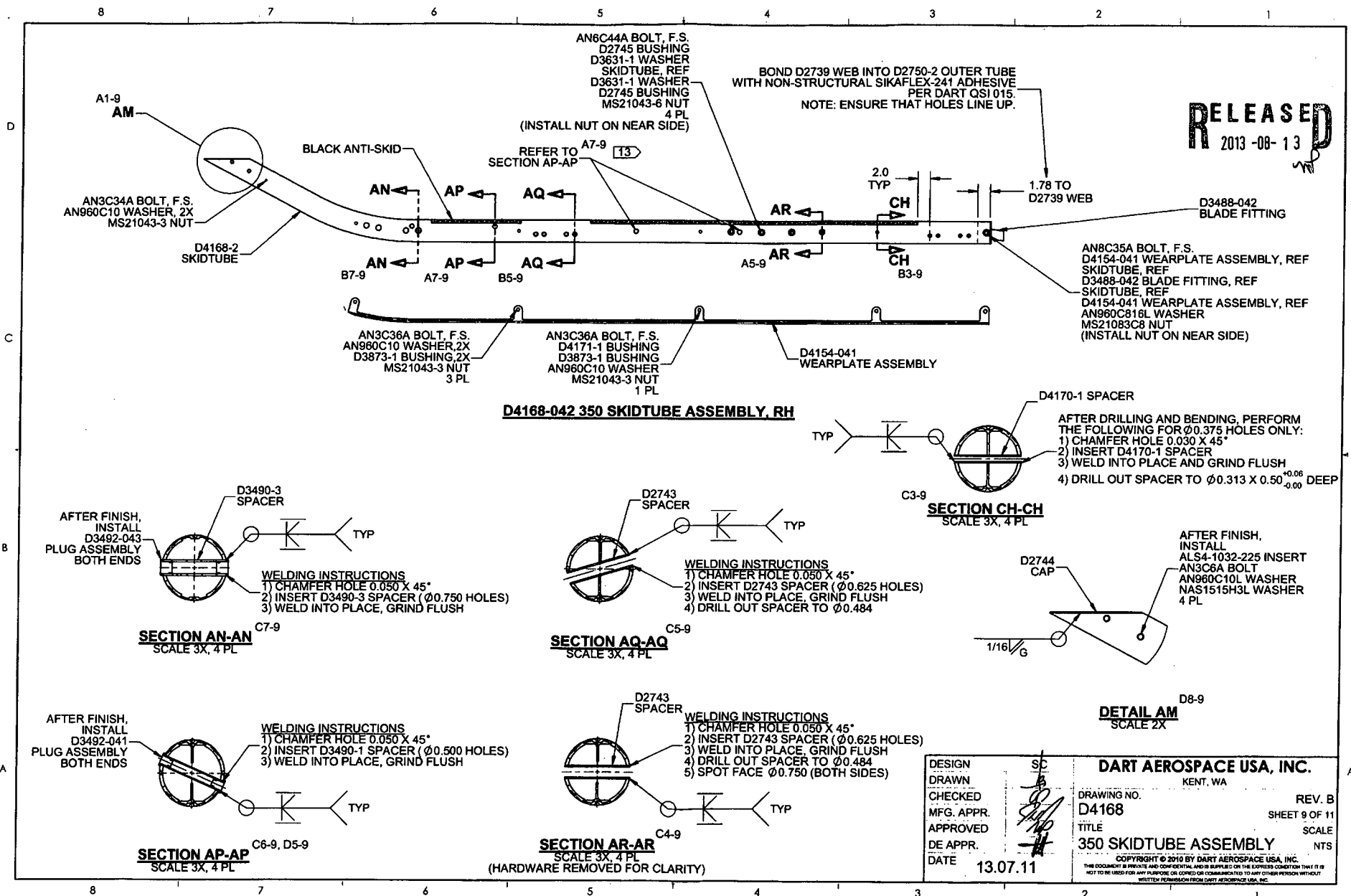
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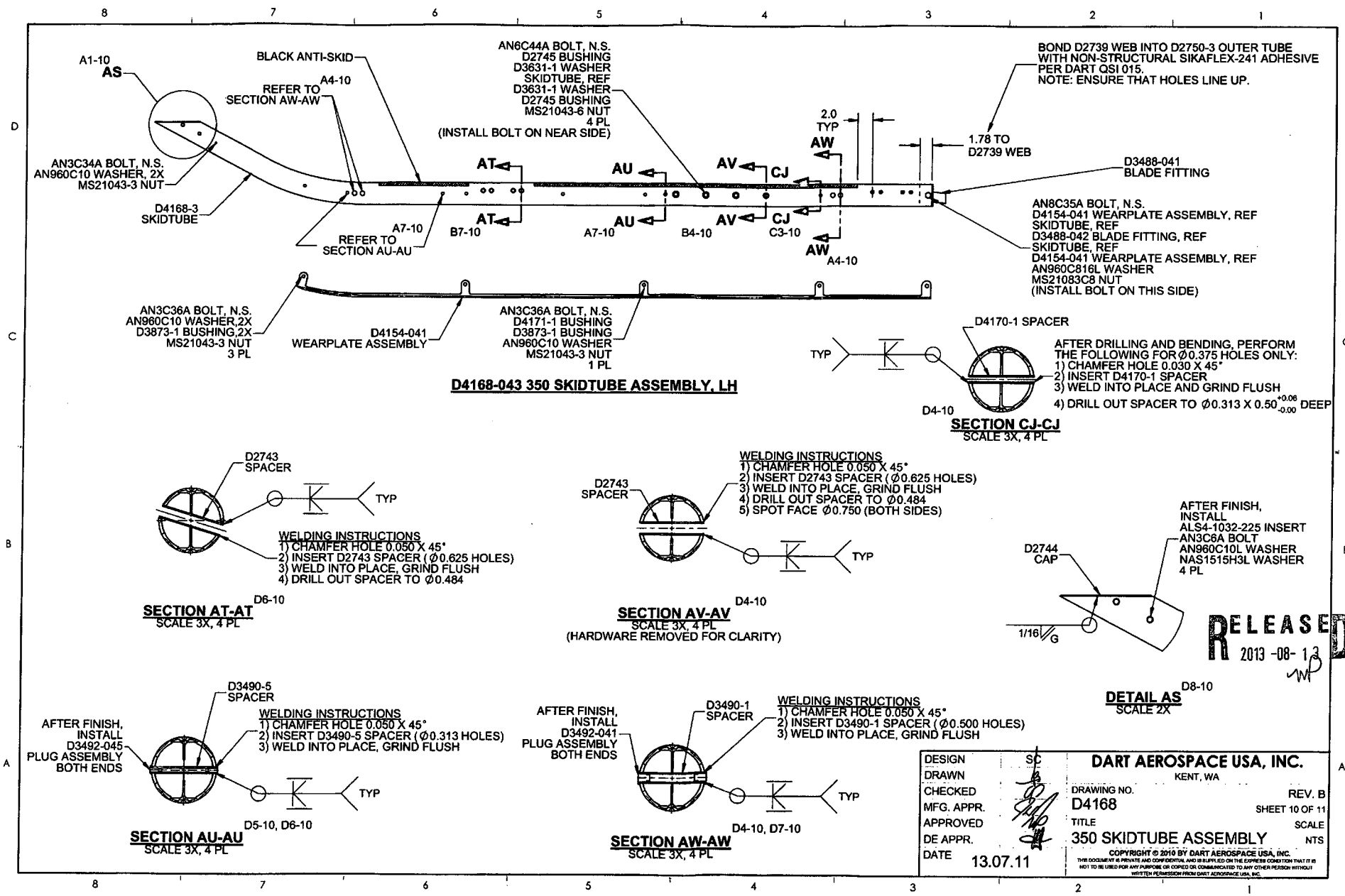
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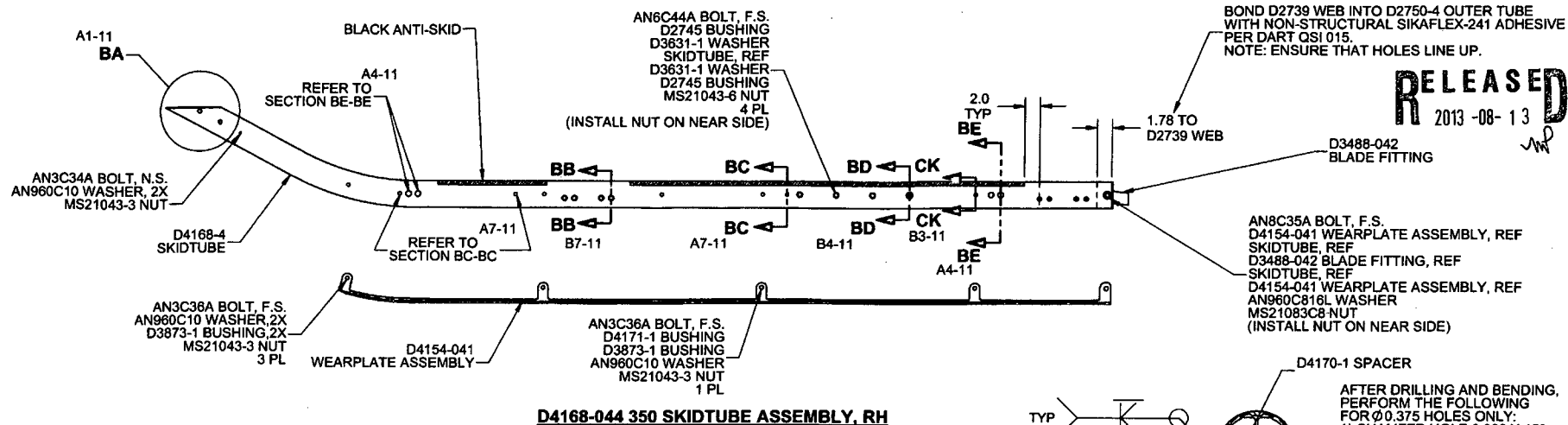




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8 7 6 5 4 3 2 1



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SECTION BB-BB
SCALE 3X, 4 PL

SECTION BD-BD
SCALE 3X, 4 PL

SECTION CK-CK
SCALE 3X, 4 PL

SECTION BC-BB
SCALE 3X, 4 PL

SECTION BE-BE
SCALE 3X, 4 PL

DETAIL BA
SCALE 2X

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